

# PHARMACOPOEIAS AND FORMULARIES

## THE BRITISH PHARMACEUTICAL CODEX, 1959\*

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Examination of the latest edition of the British Pharmaceutical Codex emphasises the tremendous strides made in therapeutics during the past five years. One need only compare the preparations found in the current volume with those carried in the previous edition in order to document this statement. At no other time in the history of drug standardisation have bodies charged with the responsibility for revision of a pharmacopoeia, formulary, or codex been faced with a task of such proportions as that encountered within the last few years. Pharmacopoeial revision is normally a difficult and painstaking project; because of the recent rapid advances in therapeutics, this is more true now than ever before.

For the reasons noted above, the Codex Revision Committee is to be particularly congratulated on the occasion of the publication of the 1959 edition of the British Pharmaceutical Codex. It might be generally stated that any book of a pharmacopoeial nature serves a useful purpose only so long as it continues to reflect current interest and usage of drugs, coupled with consideration of good medical practice. It is all too easy for a revision committee to allow itself to become so enamoured with the past glories of those drugs which have since dropped into oblivion that it refuses to exclude such agents from a new revision, and to replace them with items currently recognised as pharmacologically superior. If this is allowed to transpire, however, the volume no longer can be regarded as a working book of standards, but merely as a reference item of historical interest.

The Revision Committee has firmly come to grips with this problem. Inspection of the current edition reveals that monographs for 99 basic drugs, 139 formulary preparations, and 11 miscellaneous items have not been carried over from the 1954 edition or 1957 Supplement. Furthermore, new monographs have been added for 70 drugs, 78 formulae, and 15 miscellaneous items. This is, of course, the most significant feature of the current revision—the attempt to maintain it as a timely, up-to-date book of drug standards. This feature is particularly impressive when the titles of the deletions and additions are examined. While it is true that there will be some minor disagreement with a few of the choices, this will generally reflect personal opinion, and for the most part, the selections have been made with a most critical eye and in keeping with good therapeutic knowledge.

Items retained from the previous volume, moreover, have not been allowed to stagnate. In some cases, the content of the individual monograph has been amended to such a degree that practically only the title is recognisable. In carrying these sections over, the respective sub-committees have revised many of the actions and uses statements, assays, identity tests, and other valuable information.

The general make-up of the present edition follows that previously employed for the Codex, and needs no introduction to those familiar with the earlier works. Following a relatively short statement of general notices, there are six main sections or "Parts" devoted respectively to (1) general monographs, (2) antisera, vaccines, and related products, (3) preparations of human blood, (4) surgical

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ligatures and sutures, (5) surgical dressings, and (6) formulary. Finally, there is a section of useful appendices, which has been expanded to cover 17 topics.

Looking more closely at Part I, General Monographs, it is immediately apparent that the present edition continues a trend established in the previous revision; namely, the bulk of the new admissions constitute synthetic organic drugs covering the entire gamut of therapeutic classes, while the majority of deletions are botanical items which over the years have given way to newer agents of generally greater medicinal potency and specificity. Several new antibiotic forms have also been added.

The monographs themselves are generally quite complete and well written. The pharmacological data ("actions and uses") appears to be especially well considered and provides a good coverage of this aspect of each drug in a rather concise form. The chemical considerations of each monograph are also substantially well done, and the only serious criticism might be levelled at the assay procedures. Of the large number of assay methods described, practically all are either gravimetric or volumetric in nature, including many elemental analyses. Consequently, an unfortunately large percentage are relatively nonspecific and open to serious error. Only a very small sprinkling of the newest monographs contain assay methods which employ newer methods of instrumental analysis. Spectrophotometric (ultra-violet, infra-red, and colorimetric) and fluorimetric assay procedures are often rapid, selective, precise, and well adapted for the determination of small quantities of drugs or contaminants. Competent analysts recognise their proven value and have widely employed them in the course of drug analysis. Greater use of such procedures in the Codex would represent a very substantial improvement over the rather large number of gravimetric and Kjeldahl nitrogen methods presently utilized.

Part VI has again undergone extensive revision, with an apparent attempt to reduce it in size, and at the same time, to improve it in quality. Over one-half of the 78 new preparations listed are of similar or identical composition to those dropped from the latest British Pharmacopoeia. Conversely, 19 of the preparations no longer carried in the Codex may now be found listed in similar or identical composition in the 1958 Pharmacopoeia. The balance of the 139 dosage forms have entirely passed from the scene. Most of these items were of such infrequent use and of such questionable therapeutic merit, that it is quite doubtful that they will be at all missed. By this careful scrutiny, the Revision Committee has quite materially enhanced the content and value of the formulary section.

As in previous editions, a set of appendices is provided. These cover a variety of useful subjects, and include three new headings: (1) milliequivalents, (2) biological assays and tests, and (3) uniformity of diameter of tablets. It would appear that with the inclusion of several spectrophotometric assay procedures in the monographs and formulary sections, it would have been desirable to have added an appendix on this subject. This might have discussed theory, defined terms and symbols, noted precautions, explained calculations, and described acceptable details of technique. However, this can be left for a subsequent edition.

The task undertaken by the Codex Revision Committee was a formidable one. In reviewing the 1959 edition of the book, the reader is impressed by the high degree of success which has been achieved. Pharmacists, physicians, and other members of the health team will benefit immeasurably from the results of this work. While this is particularly true of individuals in the British Commonwealth, the British Pharmaceutical Codex will continue to occupy a place of high prestige with others throughout the world who are also concerned with the public health and safety.